



New geographic and host records for scelionid wasps (Hymenoptera: Scelionidae) parasitoids of insect pests in South America

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Abstract

This contribution provides new parasitoid/host associations for scelionid species distributed in Argentina, Brazil, Colombia and Uruguay, and new geographic records. The parasitoid species examined belong to the genera *Gryon* Haliday, *Phanuropsis* Girault, *Trissolcus* Ashmead, and *Telenomus* Haliday, and all of them attack insect pests. Three cases of multiple scelionid species emerging from a single egg mass of Pentatomidae are reported.

Key words: Scelionidae, host records, multiple parasitoidism, Argentina

Introduction

Scelionid wasps are primary idiobiont endoparasitoids of eggs of insects and spiders. Most of them are solitary parasitoids but there are some few gregarious species, with five to more than twenty individuals completing development in a single egg. This is encountered for some Telenominae that attack large-sized eggs (Johnson 1984, Margaría *et al.* 2007).

Scelionids strongly avoid superparasitoidism, discriminating previously parasitized eggs via detection of an external marking pheromone or via recognition of internal markers (Bosque and Rabinovich 1979; Klomp *et al.* 1980; Strand 1985). Cases of multiple scelionid species emerging from a single egg mass have been reported, with some frequency in the United States of America (Yeagan 1979), Brazil (Correa-Ferreira 1986; Correa-Ferreira & Moscardi 1995; Foerster & Queiroz 1990; Medeiros *et al.* 1997) and Africa (Schulthess *et al.* 2001; Agboka *et al.* 2002).

The scelionid fauna of Argentina and most South American countries is poorly known and it has been recently studied by some of the authors of this article (Loiácono 1998, Loiácono & Margaría 2002, Margaría (unpubl.). In this contribution we report new parasitoid/host associations, including three cases of multiple scelionid species emerging from a single egg mass, and new geographic records at country or state level.

Scelionid species herein studied belong to the genera *Gryon* Haliday, *Phanuropsis* Girault, *Trissolcus* Ashmead, and *Telenomus* Haliday, and attack eggs of Hemiptera Heteroptera and Lepidoptera, most of them of economic importance. The information on tritrophic relationships, including parasitoid hosts and host plants of the insect pests, is essential to establish biological control strategies.

Materials and methods

The specimens herein examined were received at the “División Entomología” of the “Museo de La Plata” for identification, and the vouchers were deposited in this institution. The information on the studied species was organized as follows: valid name of the scelionid species (listed in alphabetical order), geographic